USAID
FROM THE AMERICAN PEOPLE

SOUTH ASIA REGIONAL INITIATIVE FOR ENERGY COOPERATION AND DEVELOPMENT

Economic and Social Benefits of Power Trade Between India and Pakistan

INTRODUCTION

Despite having large hydropower potential and coal reserves, both India and Pakistan continue to import hydrocarbon fuels in significant volumes. Petroleum products and other forms of hydrocarbons constitute 10% to 15% of their total imports, and sharp fluctuations in international oil prices severely impact their economies. Power shortages affect their industrial and agriculture production and adversely impact employment generation.

The result is a lower than normal human development index and a high level of poverty. Availability of quality power at affordable prices through cross border power trade would address a number of these critical problems.

ASSESSING THE BENEFITS TO BOTH COUNTRIES

Given the relative sizes of their economies, benefits have been assessed for Pakistan as a whole and for those parts of India that are likely to reap the benefits of cross-border power trade (essentially, the states close to the India-Pakistan border).

To assess the full scope of potential benefits—if Pakistan were to sell 3,000 MW of power to India, it could not only earn an annual net profit of $160 million (after deducting fixed and running costs) but also gain an additional $300 million through a parallel 10% decrease in defense expenditures, due to improved relations with India. Direct savings to Pakistan would be nearly $460 million a year.

EDUCATIONAL IMPACTS—PAKISTAN

Extension of Educational Services. Even if Pakistan were to spend only half of the aforementioned $460 million on education, it could radically transform its educational sector. By spending these funds on primary education, an estimated 27,600 new schools could be built. With 200 students per school, 5.52 million more children could be enrolled annually. Assigning five teachers to each school would employ 138,000 new teachers and constructing new buildings would employ thousands of skilled and unskilled workers from economically depressed rural areas.

Improved Quality of Instruction. Using its savings to install basic infrastructure would also improve teacher attendance in rural schools and colleges, end the local "ghost school" phenomenon, and dramatically reduce the current school dropout rate of about 40%.

Positive Change in the Learning Environment. If $115 million of the savings were allocated to higher education, Pakistan could double its current spending in this subsector. That additional funding would give it the flexibility to expand instruction in certain fields, attract more qualified teachers by offering better working conditions, provide better teaching facilities, and improve educational quality and standards.

HEALTH-RELATED BENEFITS—PAKISTAN

As an alternative option, assuming that $ 230 million (half of the $460 million) were allocated to the health sector, Pakistan would cover the entire cost of the health ministry's immunization and development budgets. Pakistan currently spends $32 million on immunizations (covering about 70% of the child population) and $142 million on development. An addition of only $14 million would provide 100% child immunization. After covering 100% child immunization at $46 million, the remaining $184 million could be used to expand health care services, improve delivery of services, and add more beds and hospitals. Given Pakistan's 2003-2004 federal health budget of $533 million; this $230 million contribution would constitute 43% of the national health budget.

ACCESSIBILITY TO HAVE-NOTS

Electrification of rural border areas would produce major changes in poverty and related regional social profiles. Removing regional disparities through electrification helps reduce social stress, energizes the entire socioeconomic process, and helps create cottage industries and product markets. It also stimulates the growth of better communications and transport services to cater to these markets, leading to more interaction between villagers and urban dwellers. New relationships develop indirectly within rural-urban and ethnic groups, contributing to the process of social integration.

POTENTIAL GAINS FROM ELIMINATING CROSS-SUBSIDIES

Most of India's state electricity boards (SEBs) incur huge losses every year. The total deficit of all SEBs in 2001-

2002 was Rs 2,483.70 billion (with subsidy) and Rs 3,317.70 billion (without subsidy). Power purchases from other countries would force the government to devise mechanisms to eliminate across-the-board subsidies, enabling it to provide subsidies only to the most deserving segments of society. For India, elimination of such subsidies would be one of the greatest benefits of cross border power trade. Given India's higher electricity tariffs, Pakistani utilities would benefit from substantial markups (30% to 80%) by exporting power to nearby cities such as Delhi, where tariffs are 23% to 80% higher than in Pakistan. This higher tariff revenue could be used by Pakistan to fund many of its sector reallocations.

FROM INFORMAL TO FORMAL TRADE

The official or documented trade volume between India and Pakistan is Rs 476 million, well below 1% of Pakistan's total international trade. It is estimated that the Indo-Pak trade routed through third countries ranges between $1 billion and $1.5–billion, although no authentic sources for verification exist. Shifting this informal trade to formal channels would reduce negative stakeholding and bring substantial customs revenue to the two countries.

South Asian tea exports to Pakistan, the largest tea importer in the world (150 million kg), have been appallingly low; only 13% in 1998. South Asia is the largest and geographically the nearest possible tea producer for Pakistan. Kenya, despite its high tea prices has emerged as the most vital source of Pakistan's tea imports, securing over 60% of market share in 1998. If Pakistan had imported all its tea from South Asian countries, it could have easily forestalled the transfer of about $110 million outside the region over a three-year period. Moreover, on a commodity like tea alone, Pakistan could save $40 million to $50 million a year.

POWER-INTENSIVE INDUSTRIES

Increasing the availability of electricity to the industrial sector would encourage greater productive consumption of power and help speed the pace of economic development and prosperity. Ensuring higher availability of supply through cross-border power exchanges would help consumers in both countries meet their electricity needs and create an atmosphere of economic interdependence—which, in turn, would help create a friendly and congenial social and political environment. In essence, it would help resolve key issues such as "lack of confidence" between the two countries.

GDP IMPACT—AGRICULTURAL PRODUCTION

Electricity is a critical input for intensive agricultural production. Farmers in Indian states bordering Pakistan would benefit immensely from cross-border power trade. If power imports generate only a 1% increase in the output of goods and produce from these states, this increase could have a positive impact on both state and national GDPs. Even at below current market prices, a 1% increase in certain agricultural items could generate over Rs 17,904.46 million (about 0.01% of the national GDP). If this produce were exported at only a 30% markup over the domestic price, it would equal almost 8% of the 2002-2003 agricultural exports. This would have a significant impact on rural employment. With higher incomes, and access to electricity, the rural population would have greater purchasing power, increasing the demand for other manufactured products.

INVESTMENT CLIMATE

Cross-border energy sector investment and trading by India and Pakistan would send a very positive signal to multinational corporations and other investors. Pakistan would likely gain more than India in FDI percentages if their bilateral relations improve.

First, the current rate of foreign investment in Pakistan is very small and remains far below its potential due to domestic political and regional security factors that have discouraged investment. In the 1990s, Pakistan received $2 billion to$3 billion a year. Once it is internally stable and has better relations with India, this investment flow will increase substantially.

Second, Pakistan's oil and gas sector has already received relatively large investment and is likely to attract even more investors. Poor-quality energy infrastructure has been a major obstacle to its economic development. Khatib and Munasighe (1992) estimated the cost of power shortages to India and Pakistan's industrial sectors to be 1.5% and 1.8% of GDP, respectively. It is estimated that every unit of electricity that is cut results in an economic loss of five to ten times the cost of electricity generated, due to wastage in labor, material, and loss of production.

CROSS-BORDER GAS TRADING

Power trading between the two countries would open up opportunities for trade in other forms of energy, such as the gas trade trough the Iran-Pakistan-India and Turkmenistan-Afghanistan-Pakistan-India pipelines. Pakistan is likely to receive over $500 million to $700 million a year in transit and royalty fees from the Iran-Pakistan-India gas pipeline alone.

South Asia Regional Initiative for
Energy Cooperation and Development
15 Vasant Marg, Vasant Vihar, New Delhi 110 057
Tel: 91-11-5166-3444
Fax: 91-11- 2615-5122
www.sari-energy.org